UNITED TECHNOLOGIES CORPORATION)	**DEPARTMENTAL**
PRATT & WHITNEY)	**FINDING OF FACT AND ORDER**
YORK COUNTY)	**AIR EMISSION LICENSE**
NORTH BERWICK, MAINE)	**AMENDMENT #1**
A-453-71-S-A (SM))	

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

Introduction

Pratt & Whitney (P&W), located on Route 9 in North Berwick, has submitted an application to amend their air emission license, A-453-71-R-R/A. Major activities at the facility involve manufacture and overhaul/repair of aircraft engine parts. P&W is requesting to install a new diesel fire pump in place of an existing unit. Also there is another diesel generator no longer used and therefore P&W has requested it be removed from their license.

Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Unit	Design Capacity	Fuel Type, % Sulfur	Maximum Firing Rate
Fire Pump #2	1.3 MMBtu/hr	Diesel, 0.05%	9.5 gallons/hour

The existing Fire Pump #1 (0.5 MMBtu/hr) has been abandoned in place since August of 2004 and replacement parts are no longer available to rebuild the engine. Also, the existing Fire Pump #2 (0.8 MMBtu/hr) was removed and will be replaced with the new one as described above.

Application Classification

This amendment, to install a new diesel fire pump, will not result in an increase in licensed allowed emissions of any criteria pollutant. Also, since P&W is removing two diesel generators from the facility, actual emissions from the facility will not increase. Therefore, this modification is determined to be a minor modification and has been processed as such.

II. REVISION DESCRIPTION

New Fuel Burning Equipment

P&W plans to install a new diesel powered emergency fire pump (Fire Pump #2 rated at 1.3 MMBtu/hr) which will be installed in the same location as the existing fire pump (0.8 MMBtu/hr) it is replacing. Also, emergency Fire Pump #1 (0.5 MMBtu/hr) will no longer be used and will be removed from the air license.

The replacement pump, Fire Pump #2, will be a Patterson Model split-case fire pump. The existing fire pump averaged 2 hours of operating time per month for exercise and maintenance over the past 5 years. Based on this average operating time, the new pump can be expected to burn approximately 230 gallons of fuel per year.

Best Practical Treatment (BPT)

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Department's regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts. BACT will include the New Source Performance Standards (NSPS) as specified in 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

NSPS Generator Requirements

Emergency Generator is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood. Stationary engines used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Fire Pump #2 was manufactured after July 1, 2006. Therefore, the fire pump is subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

A summary of BACT analysis, which incorporates the NSPS requirements, for Fire Pump #2 (1.3 MMBtu/hr) is the following:

1. Fire Pump #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm.
2. Beginning October 1, 2010, Fire Pump #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm.
3. Fire Pump #2 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Fire Pump #2 shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
4. Fire Pump #2 shall be equipped with a non-resettable hour meter.
5. PM, CO, and NO_x + VOC emission limits are based on emission limits set forth in 40 CFR 60, Subpart IIII.
6. P&W shall operate and maintain Fire Pump #2 in accordance with the manufacturer's written instructions. P&W shall not change settings that are not approved in writing by the manufacturer.
7. Visible emissions from the back-up Fire Pump shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

UNITED TECHNOLOGIES CORPORATION	**)**	**DEPARTMENTAL**
PRATT & WHITNEY	**)**	**FINDING OF FACT AND ORDER**
YORK COUNTY	**)**	**AIR EMISSION LICENSE**
NORTH BERWICK, MAINE	**)**	**AMENDMENT #1**
A-453-71-S-A (SM)	**4**	

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-453-71-S-A subject to the conditions found in Air Emission License A-453-71-R-R/A and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

SPECIFIC CONDITIONS

The following shall be included as Condition (26) of Pratt & Whitney's Air Emissions License, A-453-71-R-R/A:

(26) Back-up Diesel Fire Pump #2:

A. Pratt & Whitney plans to install a new emergency Fire Pump #2 rated at a maximum design heat input capacity of 1.3 MMBtu/hr. Fire Pump #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm.

B. Beginning October 1, 2010, Fire Pump #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm.

C. Fire Pump #2 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Fire Pump #2 shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.

D. Fire Pump #2 shall be equipped with a non-resettable hour meter.

E. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Fire Pump #2	PM	0.10	06-096 CMR 115, BACT

F. Emissions shall not exceed the following:

Emission Unit	PM (g/kW-hr)	NO_x + VOC (g/kW-hr)	CO (g/kW-hr)
Fire Pump #2	0.2	6.4	3.5

G. Emissions shall not exceed the following:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x + VOC (lb/hr)	CO (lb/hr)
Fire Pump #2	0.05	0.05	0.07	1.56	0.86

H. P&W shall operate and maintain Fire Pump #2 in accordance with the manufacturer's written instructions. P&W shall not change settings that are not approved in writing by the manufacturer.

I. Visible emissions from the emergency fire pump shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

[06-096 CMR 115, BACT, 06-096 CMR 101, & 40 CFR Part 60 Subpart IIII]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: **May 27, 2008**
Date of application acceptance: **June 6, 2008**

Date filed with the Board of Environmental Protection _____

This Order prepared by Edwin Cousins, Bureau of Air Quality